WEED ABSTRACTS

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WEED ABSTRACTS

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UNDER THE DIRECTION OF J.D. FRYER

The journal is published monthly by the Commonwealth Agricultural Bureaux as one of a series of abstract journals covering the major branches of agricultural science.

The object of *Weed Abstracts* is to provide factual summaries and reports of the world scientific and technical literature on weeds, weed control and allied subjects as a means of enabling readers to keep abreast of current developments and to act as a concise source of reference.

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Abbreviations

abs.	abstract	in	inch	pp.	pages
a.e.	acid equivalent	in^2	square inch	p.p.m.	parts per million
a.i.	active ingredient	IR	infra-red	p.p.m.v.	parts per million by volume
b.p.	boiling point	kcal	kilocalorie		
bu	bushel	kg	kilogramme	p.p.m.w.	parts per million by weight
°C	degrees Celsius (formerly Centigrade)	LC_{50}	median lethal concentration (median tolerance limit or TL_m)	pre-em.	pre-emergence
conc.	concentrated			p.t.o.	power take off
concn.	concentration	LD_{50}	median lethal dose	pt	pint
cv.	cultivar(s)	lb	pound	ref.	references
cwt	hundredweight	lbf/in^2	pounds-force per square inch	RH	relative humidity
d.b.h.	diameter at breast height			s	second
		M	molar concentration	sp.	species
diam.	diameter	m	metre	spp.	species (plural)
DM	dry matter	m-	milli-(x 10^{-3})	ssp.	subspecies
dz	Doppelzentner (= 100 kg	μ-	micro (x 10^{-6})	t	tonne (Mg)
		μm	micron	temp.	temperature
e.c.	emulsifiable concentrate	m^2	square metre	TLC	thin-layer chromatography
		m.c.	moisture content		
°F	degrees Fahrenheit	mg	milligramme	u.l.v.	ultra low volume
ft	foot	min	minute	UV	ultra-violet
ft^2	square foot	ml	millilitre	var.	*varietas*
g	gramme	mm	millimetre	vol.	volume
gal	gallon	m.p.	melting point	wt	weight
GLC	gas-liquid chromatography	N	normal concentration	w.p.	wettable powder
		n	nano-(x 10^{-9})	yd	yard
h	hour	OM	organic matter	>	more than
ha	hectare	oz	ounce	<	less than
hkg	hectokilogramme	p.	page	±	with or without
hp	horsepower	post-em.	post-emergence	%	percent(age)

Languages

An initial capital denotes the language of the paper, an initial small letter the language of the summary.

Af	Afrikaans	Fi	Finnish	It	Italian	Ru	Russian
Bg	Bulgarian	Nl	Flemish	Ja	Japanese	Sh	Serbo-Croat
Cs	Czech	Fr	French	No	Norwegian	Sk	Slovak
Da	Danish	De	German	Pl	Polish	Es	Spanish
Nl	Dutch	He	Hebrew	Pt	Portuguese	Sv	Swedish
En	English	Hu	Hungarian	Ro	Romanian	Tr	Turkish

Abstract Numeration A sequence of abstracts sharing a common bibliographical description, e.g. each of a series of items drawn from the annual report of a research station, is indicated by placing the serial numbers of all items other than the first (that containing the bibliographical details common to all) within square brackets.

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Use of 'a.i.', 'a.e.' etc. Unless otherwise stated, rates of application for growth-regulator herbicides such as 2,4-D, MCPA, fenoprop, dalapon, the benzoics, etc. are given as the acid equivalent. Rates for other herbicides such as the ureas, carbamates, triazines, etc. are given as the active ingredient. Rates for the bipyridyls refer to the cation, only.

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List of common names and abbreviations employed for currently used herbicides and plant growth regulators in *Weed Abstracts*

An asterisk (*) signifies approval by the British Standards Institution (BSI)
A dagger (†) signifies approval by the Weed Science Society of America (WSSA) or ANSI
A double dagger (‡) signifies approval by the International Organization for Standardization (I.S.O.)
Where the name approved by the WSSA or the I.S.O. differs from that approved by the BSI, the WSSA or I.S.O. name is given in brackets opposite the chemical name, with the appropriate symbol attached.

acifluorfen*†‡	5-(2-chloro-4-trifluoromethylphenoxy)-2-nitrobenzoic acid	
acrolein	acrylaldehyde	
alachlor*†‡	α-chloro-2,6-diethyl-*N*-(methoxymethyl)acetanilide	
allidochlor*‡	*N,N*-diallylchloroacetamide	(CDAA†)
alloxydim*	2-[1-(*N*-allyloxyamino)butylidene]-4-methoxycarbonyl-5,5-dimethylcyclohexane-1,3-dione	
ametridione*	1-amino-6-ethylthio-3-neopentyl-1,3,5-triazine-2,4-dione	
ametryne*	4-ethylamino-6-isopropylamino-2-methylthio-1,3,5-triazine	(ametryn†)
aminotriazole	3-amino-1,2,4-triazole	(amitrole†‡)
amiprofos-methyl*	*O*-methyl *O*-(4-methyl-2-nitrophenyl) *N*-isopropylphosphoramidothionate	
AMS†	ammonium sulphamate	
ancymidol*‡	α-cyclopropyl-4-methoxy-α-pyrimidin-5-ylbenzyl alcohol	
anilofos*	*S*-4-chloro-*N*-isopropylcarbaniloylmethyl *O,O*-dimethyl phosphorodithioate	
asulam*†‡	methyl (4-aminobenzenesulphonyl)carbamate	
atraton*†‡	4-ethylamino-6-isopropylamino-2-methoxy-1,3,5-triazine	
atrazine*†‡	2-chloro-4-ethylamino-6-isopropylamino-1,3,5-triazine	
aziprotryne*‡	2-azido-4-isopropylamino-6-methylthio-1,3,5-triazine	
barban*†‡	4-chlorobut-2-ynyl *N*-(3-chlorophenyl)carbamate	
benazolin*‡	4-chloro-2-oxobenzothiazolin-3-ylacetic acid	
benfluralin*‡	*N*-butyl-*N*-ethyl-2,6-dinitro-4-trifluoromethylaniline	(benefin†)
bensulide*†‡	*N*-[2-(*O,O*-di-isopropyldithiophosphoryl)ethyl] benzene sulphonamide	
bentazone*‡	3-isopropyl-2,1,3-benzothiadiazin-4-one 2,2-dioxide	(bentazon†)
benzadox*†	benzamido-oxyacetic acid	
benzoylprop-ethyl*‡	ethyl *N*-benzoyl-*N*-(3,4-dichlorophenyl)-2-aminopropionate	(benzoylprop† [acid])
benzthiazuron*‡	*N*-(benzothiazol-2-yl)-*N*-methylurea	
bifenox†	methyl 5-(2,4-dichlorophenoxy)-2-nitrobenzoate	
bromacil*†‡	5-bromo-6-methyl-3-(1-methyl-n-propyl) uracil	
bromofenoxim*‡	3,5-dibromo-4-hydroxybenzaldehyde 2,4-dinitrophenyloxime	
bromoxynil*†‡	3,5-dibromo-4-hydroxybenzonitrile	
buminafos*	dibutyl 1-butylaminocyclohexylphosphonate	
butachlor*†	*N*-(butoxymethyl)-α-chloro-2,6-diethylacetanilide	
butam†	*N*-benzyl-*N*-isopropyl-2,2-dimethylpropionamide	
butamifos*‡	*O*-ethyl *O*-(5-methyl-2-nitrophenyl) *N*-s-butylphosphoramidothionate	
buthidazole*†	4-hydroxy-1-methyl-3-(2-t-butyl-1,3,4-thiadiazol-5-yl)imidazolidin-2-one	
buthiuron*	*N'*-(5-butylsulphonyl-1,3,4-thiadiazol-2-yl)-*N,N'*-dimethylurea	
butralin*†	*N*-s-butyl-4-t-butyl-2,6-dinitroaniline	
buturon*†‡	*N'*-(4-chlorophenyl)-*N*-(1-methylprop-2-ynyl)-*N*-methylurea	
butylate*†‡	*S*-ethyl *N,N*-di-isobutyl(thiocarbamate)	
cambendichlor*†‡	*N*-phenylimino diethylene bis(3,6-dichloro-2-methoxybenzoic acid)	
carbetamide*†‡	D-*N*-ethyl-2-(phenylcarbamoyloxy)propionamide	
chloramben*†‡	3-amino-2,5-dichlorobenzoic acid	
chloranocryl*‡	*N*-(3,4-dichlorophenyl)methacrylamide	(dicryl†)
chlorbromuron*†‡	*N'*-(4-bromo-3-chlorophenyl)-*N*-methoxy-*N*-methylurea	
chlorbufam*‡	1-methylprop-2-ynyl *N*-(3-chlorophenyl)carbamate	
chloreturon*	*N'*-(3-chloro-4-ethoxyphenyl)-*N,N*-dimethylurea	
chlorfenac*‡	2,3,6-trichlorophenylacetic acid	(fenac†)
chlorfenprop-methyl*‡	methyl 2-chloro-3-(4-chlorophenyl)propionate	
chlorflurecol*	2-chloro-9-hydroxyfluorene-9-carboxylic acid	(chlorflurenol‡)
chlorfluren*‡	2-chlorofluorene-9-carboxylic acid	
chloridazon*	5-amino-4-chloro-2-phenylpyridazin-3(2*H*)-one	(pyrazon†)
chlormequat*‡	2-chloroethyl-trimethyl-ammonium chloride	(CCC†)
chlornitrofen*‡	4-nitrophenyl 2,4,6-trichlorophenyl ether	
chloroxuron*†‡	*N*-4-(4-chlorophenoxy)phenyl-*N,N*-dimethylurea	
chlorphonium*‡	tributyl-2,4-dichlorobenzylphosphonium	
chlorpropham*†‡	isopropyl *N*-(3-chlorophenyl)carbamate	
chlorsulfuron*†	*N'*-(2-chlorobenzenesulphonyl)-*N*-(4-methoxy-6-methyl-1,3,5-triazin-1-yl)urea	
chlorthal-dimethyl*‡	2,3,5,6-tetrachloroterephthalic acid dimethyl ester	(DCPA†)
chlorthiamid*‡	2,6-dichlorothiobenzamide	
chlortoluron*‡	*N'*-(3-chloro-4-methylphenyl)-*N,N*-dimethylurea	
cisanilide†	2,5-dimethyl-1-pyrrolidine-carboxanilide	
cliodinate*	2-chloro-3,5-di-iodo-4-pyridyl acetate	
clofop-isobutyl*	isobutyl 2-[4-(4-chlorophenoxy)phenoxy] propionate	
cloprop*	2-(3-chlorophenoxy)propionic acid	
4-CPA*†‡	4-chlorophenoxyacetic acid	
cyanatryn*	4-(1-cyano-1-methylethylamino)-6-ethylamino-2-methylthio-1,3,5-triazine	
cyanazine*†‡	2-chloro-4-(1-cyano-1-methylethylamino)-6-ethylamino-1,3,5-triazine	
cycloate*†	*N'*-cyclohexyl-*N*-ethyl-*S*-ethyl(thiocarbamate)	
cycluron*†‡	*N'*-cyclo-octyl-*N,N*-dimethylurea	
cyometrinil*	α-(cyanomethoxyimino)benzacetonitrile	
cyperquat*†	1-methyl-4-phenylpyridinium	
cyprazine*†	2-chloro-4-cyclopropylamino-6-isopropylamino-1,3,5-triazine	
cyprazole*†	*N*-[5-(2-chloro-1,1-dimethylethyl)-1,3,4-thiadiazol-2-yl]cyclopropanecarboxamide	
cypromid*†‡	3,4-dichlorocyclopropanecarboxanilide	
2,4-D*†‡	2,4-dichlorophenoxyacetic acid	
dalapon*†	2,2-dichloropropionic acid	
daminozide*‡	*N*-dimethylaminosuccinamic acid	
dazomet*†‡	3,4,5,6-tetrahydro-3,5-dimethyl-1,3,5-thiadiazine-2-thione	
2,4-DB*†	4-(2,4-dichlorophenoxy)butyric acid	
DCU†	dichloral urea	
delachlor*†‡	α-chloro-*N*-(isobutoxymethyl)-2,6-acetoxylidide	
2,4-DES	2-(2,4-dichlorophenoxy)ethyl hydrogen sulphate	(sesone†, disul‡)
desmedipham*†‡	3-(ethoxycarbonylamino)phenyl *N*-phenylcarbamate	
desmetryne*	4-isopropylamino-6-methylamino-2-methylthio-1,3,5-triazine	(desmetryn†‡)
di-allate*‡	*S*-2,3-dichloroallyl *N,N*-di-isopropyl(thiocarbamate)	(diallate†)
dicamba*†‡	3,6-dichloro-2-methoxybenzoic acid	
dichlobenil*†‡	2,6-dichlorobenzonitrile	

chlone*†‡	2,3-dichloro-1,4-naphthaquinone	
chlorflurenol*‡	2,7-dichloro-9-hydroxyfluorene-9-carboxylic acid	
chlormate*†‡	3,4-dichlorobenzyl *N*-methylcarbamate	
chlorprop*†‡	(±)-(2-(2,4-dichlorophenoxy)propionic acid	
clofop-methyl*	methyl 2-[4-(2,4-dichlorophenoxy)phenoxy] propionate	(diclofop† [acid])
ethamquat*	1,1′-di(diethylcarbamoylmethyl)-4,4′-bipyridyl-1,1′-diylium	
ethatyl*†‡	*N*-chloroacetyl-*N*-(2,6-diethylphenyl)aminoacetic acid	
fenopenten*†	4-[4-(4-trifluoromethylphenoxy)phenoxy] pent-2-enoic acid	
fenoxuron*†‡	*N′*-4-(4-methoxyphenoxy)phenyl-*N,N*-dimethylurea	
fenzoquat*†	1,2-dimethyl-3,5-diphenyl-pyrazolium	
kegulac*	2,3:4,6-di-*O*-isopropylidene-α-L-xylo-2-hexulofuranosonic acid	
mefuron*	4-[2-chloro-4-(3,3-dimethylureido)phenyl] -2-t-butyl-1,3,4-oxadiazolin-5-one	
methachlor*	α-chloro-*N*-(2-methoxyethyl)-2′,6′-acetoxylidide	
methametryn*	2-(1,2-dimethylpropylamino)-4-ethylamino-6-methylthio-1,3,5-triazine	
midazon*‡	4,5-dimethoxy-2-phenylpyridazin-3(2*H*)-one	
mexan*	di(methoxythiocarbonyl)disulphide	(dimexano‡)
nitramine*†‡	N^1,N^1-diethyl-2,6-dinitro-4-trifluoromethyl-*m*-phenylenediamine	
noseb*†‡	2-(1-methylpropyl)-4,6-dinitrophenol	
noterb*‡	4,6-dinitro-2-t-butylphenol	
phenamid*†‡	*N,N*-dimethyl-αα-diphenylacetamide	
propetryn*†‡	2-ethylthio-4,6-di(isopropylamino)-1,3,5-triazine	
quat*†‡	9,10-dihydro-8a,10a-diazoniaphenanthrene	
uron*†‡	*N′*-(3,4-dichlorophenyl)-*N,N*-dimethylurea	
NOC*†‡	2-methyl-4,6-dinitrophenol	
SMA†	disodium methylarsonate	
glinazine*‡	*N*-(4-chloro-6-ethylamino-1,3,5-triazin-2-yl)aminoacetate	
ndothal*	7-oxabicyclo[2,2,1] heptane-2,3-dicarboxylic acid	(endothall†, endothal-sodium[=Na salt‡])
pronaz*	1-(*N*-ethyl-*N*-propylcarbamoyl)-3-propylsulphonyl-1,2,4-triazole	
PTC*†‡	*S*-ethyl *N,N*-dipropyl(thiocarbamate)	
rbon†‡	2-(2,4,5-trichlorophenoxy)ethyl 2,2-dichloropropionate	
tacelasil*	2-chloroethyltri-(2-methoxyethoxy)silane	
thalfluralin*†	*N*-ethyl-*N*-(2-methylallyl)-2,6-dinitro-4-trifluoromethylaniline	
thephon†	2-chloroethylphosphonic acid	
thidimuron*	*N′*-(5-ethylsulphonyl-1,3,4-thiadiazol-2-yl)-*N,N′*-dimethylurea	
thiolate*†‡	*S*-ethyl diethylthiocarbamate	
thofumesate*†	2-ethoxy-2,3-dihydro-3,3-dimethylbenzofuran-5-yl methylsulphonate	
ampromid*	(±)-2-[5-(2,4-dichlorophenoxy)-2-nitrophenoxy] -*N*-ethylpropionamide	
enoprop*‡	(±)-2-(2,4,5-trichlorophenoxy)propionic acid	(silvex†)
enridazon*	1-(4-chlorophenyl)-1,4-dihydro-6-methyl-4-oxopyridazine-3-carboxylic acid	
enteracol*	2-(2,4,5-trichlorophenoxy)ethanol	
enuron*†‡	*N,N*-dimethyl-*N′*-phenylurea	
lamprop-isopropyl*	isopropyl (±)-2-(*N*-benzoyl-3-chloro-4-fluoroanilino)propionate	(flamprop† [acid])
lamprop-methyl*	methyl (±)-2-(*N*-benzoyl-3-chloro-4-fluoroanilino)propionate	(flamprop† [acid])
luazifop*	(±)-2-[4-(5-trifluoromethyl-2-pyridyloxy)phenoxy] propionic acid	
luchloralin*†‡	*N*-(2-chloroethyl)-2,6-dinitro-*N*-propyl-4-(trifluoromethyl)aniline	
luometuron*†‡	*N′*-(3-trifluoromethylphenyl)-*N,N*-dimethylurea	
luoridamid*	3-trifluoromethylsulphonamido-*p*-acetotoluidide	
luorodifen*†‡	4-nitrophenyl 2-nitro-4-trifluoromethylphenyl ether	
luoronitrofen*‡	2,4-dichloro-6-fluorophenyl 4-nitrophenyl ether	
luothiuron*	*N*-(3-chloro-4-chlorodifluoromethylthiophenyl)-*N′,N′*-dimethylurea	
lurecol*	9-hydroxyfluorene-9-carboxylic acid	(flurenol†‡)
luridone*†	1-methyl-3-phenyl-5-(3-trifluoromethylphenyl)pyridin-4-one	
luromidine*‡	6-chloro-2-trifluoromethyl-3*H*-imidazo[4,5-*b*] pyridine	
omesafen*	2-chloro-4-trifluoromethylphenyl 3-methylphenylcarbamoyl-4-nitrophenyl ether	
osamine*†‡	ethyl hydrogen carbamoylphosphonate	
A	gibberellic acid	
ufosinate*	DL-homoalanin-4-yl(methyl)phosphinic acid	
lyphosate*†	*N*-(phosphonomethyl)glycine	
lyphosine*	*N,N*-bis(phosphonomethyl)glycine	
aloxydine*‡	3,5-dichloro-2,6-difluoro-4-hydroxypyridine	
exaflurate†	potassium hexafluoroarsenate	
exazinone*†‡	3-cyclohexyl-6-dimethylamino-1-methyl-1,3,5-triazine-2,4-dione	
olosulf*‡	(2-chloroethyl)sulphinic acid	
AA	indolylacetic acid	
BA	indolylbutyric acid	
oxynil*†‡	4-hydroxy-3,5-di-iodobenzonitrile	
socarbamid*	*N*-isobutylimidazolidin-2-one-1-carboxamide	
somethiozin*	4-(isobutylideneamino)-3-methylthio-6-t-butyl-1,2,4-triazin-5-one	
sopropalin*†‡	4-isopropyl-2,6-dinitro-*N,N*-dipropylaniline	
soproturon*	*N′*-(4-isopropylphenyl)-*N,N*-dimethylurea	
sopyrimol*	4-chloro-α-isopropyl-α-(pyrimidin-5-yl)benzyl alcohol	
souron*†	*N′*-(5-t-butylisoxazol-3-yl)-*N,N*-dimethylurea	
arbutilate*†‡	*m*-(3,3-dimethylureido)phenyl t-butylcarbamate	
enacil*†‡	3-cyclohexyl-6,7-dihydro-1*H*-cyclopentapyrimidine-2,4-(3*H*,5*H*)dione	
inuron*†‡	*N′*-(3,4-dichlorophenyl)-*N*-methoxy-*N*-methylurea	
MAMA†	monoammonium methylarsonate	
MCPA*†‡	4-chloro-2-methylphenoxyacetic acid	
MCPA-thioethyl*‡	*S*-ethyl 4-chloro-2-methylphenoxythioacetate	
MCPB*†‡	4-(4-chloro-2-methylphenoxy)butyric acid	
mecoprop*†‡	(±)-2-(4-chloro-2-methylphenoxy)propionic acid	
medinoterb*‡	4,6-dinitro-5-methyl-2-t-butylphenol	
mefluidide*†	5-trifluoromethylsulphonylamino-2,4-acetoxylidide	
mepiquat*‡	1,1-dimethylpiperidinium ion	
metamitron*	4-amino-3-methyl-6-phenyl-1,2,4-triazin-5(4*H*)-one	
metazachlor*	α-chloro-*N*-(1-pyrazolylmethyl)aceto-2′,6′-xylidide	
metflurazone*‡	4-chloro-5-(dimethylamino)-2-(3-trifluoromethylphenyl)pyridazin-3(2*H*)-one	
methabenzthiazuron*‡	*N*-(benzothiazol-2-yl)-*N,N′*-dimethylurea	
methalpropalin*†‡	*N*-methylallyl-2,6-dinitro-*N*-propyl-4-trifluoromethylaniline	
metham*†	*N*-methyldithiocarbamic acid	(metam-sodium [=Na salt]‡)
methazole†	2-(3,4-dichlorophenyl)-4-methyl-1,2,4-oxadiazolidine-3,5-dione	
methiobencarb*‡	*S*-(4-methoxybenzyl) *N,N*-diethylthiolcarbamate	
methometon*‡	2-methoxy-4,6-bis(3-methoxypropylamino)-1,3,5-triazine	
methoprotryne*‡	4-isopropylamino-6-(3-methoxypropylamino)-2-methylthio-1,3,5-triazine	
metobromuron*†‡	*N′*-(4-bromophenyl)-*N*-methoxy-*N*-methylurea	

metolachlor*†	α-chloro-6-ethyl-*N*-(2-methoxy-1-methylethyl)-*o*-acetotoluidide	
metoxuron*‡	*N'*-(3-chloro-4-methoxyphenyl)-*N,N*-dimethylurea	
metribuzin*†‡	4-amino-6-t-butyl-3-(methylthio)-1,2,4-triazin-5(4*H*)-one	
MH†	1,2,3,6-tetrahydro-3,6-dioxopyridazine	
molinate*†‡	*S*-ethyl *N,N*-hexamethylene(thiocarbamate)	
monalide*‡	*N*-(4-chlorophenyl)-2,2-dimethylvaleramide	
monolinuron*†‡	*N'*-(4-chlorophenyl)-*N*-methoxy-*N*-methylurea	
monuron*†‡	*N'*-(4-chlorophenyl)-*N,N*-dimethylurea	
morfamquat*‡	1,1'-bis(3,5-dimethylmorpholinocarbonylmethyl)-4,4'-bipyridylium	
MSMA†	monosodium methylarsonate	
NAA	1-naphthylacetic acid	
napropamide*†	*N,N*-diethyl-2-(α-naphthoxy)propionamide	
naptalam*†‡	*N*-1-naphthylphthalamic acid	
neburon*†‡	*N*-butyl-*N'*-(3,4-dichlorophenyl)-*N*-methylurea	
nitralin*†‡	4-(methylsulphonyl)-2,6-dinitro-*N,N*-dipropylaniline	
nitrofen*†‡	2,4-dichlorophenyl 4-nitrophenyl ether	
nitrofluorfen*†	2-chloro-4-trifluoromethylphenyl 4-nitrophenyl ether	
norflurazon*†‡	4-chloro-5-methylamino-2-(3-trifluoromethylphenyl)pyridazin-3-one	
noruron*‡	*N'*-(hexahydro-4,7-methanoindan-5-yl)-*N,N*-dimethylurea	(norea†)
oryzalin*†‡	3,5-dinitro-N^4N^4-dipropylsulphanilamide	
oxadiazon*†‡	3-(2,4-dichloro-5-isopropoxyphenyl)-5-t-butyl-1,3,4-oxadiazolin-2-one	
oxyfluorfen*†	2-chloro-4-trifluoromethylphenyl 3-ethoxy-4-nitrophenyl ether	
paraquat*†‡	1,1'-dimethyl-4,4'-bipyridylium	
PCP†	pentachlorophenol	
pebulate*†‡	*S*-propyl *N*-butyl-*N*-ethyl(thiocarbamate)	
pendimethalin*†‡	*N*-(1-ethylpropyl)-2,6-dinitro-3,4-xylidine	
pentanochlor*‡	*N*-(3-chloro-4-methylphenyl)-2-methylpentanamide	(solan†)
perfluidone*†	4'-(phenylsulphonyl) trifluoromethylsulphono-*o*-toluidide	
phenisopham*	3-isopropoxycarbonylaminophenyl *N*-ethyl-*N*-phenylcarbamate	
phenmedipham*†‡	3-(methoxycarbonylamino)phenyl *N*-(3-methylphenyl)carbamate	
phenmedipham-ethyl*‡	3-ethoxycarbonylaminophenyl *N*-(3-methylphenyl)carbamate	
phenobenzuron*‡	*N'*-benzoyl-*N'*-(3,4-dichlorophenyl)-*N,N*-dimethylurea	
picloram*†‡	4-amino-3,5,6-trichloropicolinic acid	
piperophos*	*S*-2-methyl-1-piperidylcarbonylmethyl *O,O*-di-n-propyl phosphorodithioate	
piproctanyl*‡	1-allyl-1-(3,7-dimethyloctyl)piperidinium ion	
pretilachlor*‡	α-chloro-2,6-diethyl-*N*-(2-propoxyethyl)acetanilide	
procyazine*†	2-chloro-4-(1-cyano-1-methylethylamino)-6-cyclopropylamino-1,3,5-triazine	
prodiamine*‡	2,6-dinitro-N^1,N^1-dipropyl-4-trifluoromethyl-*m*-phenylenediamine	
profluralin*†	*N*-(cyclopropylmethyl)-2,6-dinitro-*N*-propyl-4-trifluoromethylaniline	
proglinazine*‡	*N*-(4-chloro-6-isopropylamino-1,3,5-triazin-2-yl)aminoacetate	
prometon*‡	4,6-bisisopropylamino-2-methoxy-1,3,5-triazine	(prometone†)
prometryne*‡	4,6-bisisopropylamino-2-methylthio-1,3,5-triazine	(prometryn†‡)
propachlor*†‡	α-chloro-*N*-isopropylacetanilide	
propanil*†‡	*N*-(3,4-dichlorophenyl) propionamide	
propazine*†‡	2-chloro-4,6-bisisopropylamino-1,3,5-triazine	
propham*†‡	isopropyl *N*-phenylcarbamate	
propyzamide*	3,5-dichloro-*N*-(1,1-dimethylpropynyl)benzamide	(pronamide†)
prosulfalin*†	*N*-(4-dipropylamino-3,5-dinitrophenylsulphonyl)-*S,S*-dimethylsulphimide	
prynachlor*†‡	2-chloro-*N*-(1-methyl-2-propynyl)acetanilide	
pydanon*‡	(±)-hexahydro-4-hydroxy-3,6-dioxopyridazin-4-ylacetic acid	
pyrazone (see chloridazon)		
pyridate*	octyl *O*-(6-chloro-3-phenylpyridazin-4-yl)carbonothioate	
quinonamid*	3-chloro-2-dichloroacetamido-1,4-naphthaquinone	
sebuthylazine*‡	2-chloro-4-ethylamino-6-s-butylamino-1,3,5-triazine	
secbumeton*†‡	4-ethylamino-2-methoxy-6-s-butylamino-1,3,5-triazine	
siduron*†‡	*N*-(2-methylcyclohexyl)-*N*-phenylurea	
simazine*†‡	2-chloro-4,6-bisethylamino-1,3,5-triazine	
simetryne*	4,6-bisethylamino-2-methylthio-1,3,5-triazine	(simetryn†‡)
SMA	sodium monochloroacetate	
sulfallate*‡	2-chloroallyl *N,N*-diethyldithiocarbamate	(CDEC†)
sulglycapin*‡	*O*-(methylsulphamoyl)glycollic acid hexamethylene imide	
swep†	methyl *N*-(3,4-dichlorophenyl)carbamate	
2,4,5-T*†‡	2,4,5-trichlorophenoxyacetic acid	
2,4,5-TB*‡	4-(2,4,5-trichlorophenoxy)butyric acid	
2,3,6-TBA†‡	2,3,6-trichlorobenzoic acid	
TCA†‡	trichloroacetic acid	(sodium trichloroacetate [=Na salt]‡)
tebuthiuron*†‡	*N,N'*-dimethyl-*N*-(5-t-butyl-1,3,4-thiadiazol-2-yl)urea	
terbacil*†	5-chloro-6-methyl-3-t-butyluracil	
terbucarb*‡	2,6-di-t-butyl-*p*-tolyl *N*-methylcarbamate	(terbutol†)
terbuchlor*†	*N*-butoxymethyl-α-chloro-6-t-butyl-*o*-acetotoluidide	
terbumeton*‡	4-ethylamino-2-methoxy-6-t-butylamino-1,3,5-triazine	
terbuthylazine*†‡	2-chloro-4-ethylamino-6-t-butylamino-1,3,5-triazine	
terbutryne*	4-ethylamino-2-methylthio-6-t-butylamino-1,3,5-triazine	(terbutryn†‡)
tetrafluron*†	*N,N*-dimethyl-*N'*-[3-(1,1,2,2-tetrafluoroethoxy)phenyl] urea	
thiazafluron*	1,3-dimethyl-1-(5-trifluoromethyl 1,3,4-thiadazol-2-yl)urea	
thidiazuron*	*N*-phenyl-*N'*-(1,2,3-thiadiazol-5-yl)urea	
thiobencarb*†‡	*S*-(4-chlorobenzyl) *N,N*-diethylthiolcarbamate	
TIBA	2,3,5-triiodobenzoic acid	
tri-allate*‡	*S*-2,3,3-trichloroallyl *N,N*-di-isopropyl(thiocarbamate)	(triallate†)
triclopyr*†	3,5,6-trichloro-2-pyridyloxyacetic acid	
trietazine*†‡	2-chloro-4-diethylamino-6-ethylamino-1,3,5-triazine	
trifluralin*†‡	2,6-dinitro-*N,N*-dipropyl-4-trifluoromethylaniline	
trifop-methyl*	methyl 2-[4-(4-trifluoromethylphenoxy)phenoxy] propionate	
trimeturon*†	*N'*-(4-chlorophenyl)-*O,N,N*-trimethylisourea	
tripropindan*‡	6-isopropyl-1,1,4-trimethyl-5-propionylindane	
vernolate*†‡	*S*-propyl *N,N*-dipropyl(thiocarbamate)	

COMMON CROP NAMES

Though both crop and weed species are indexed by their Latin name, commonly occurring crop species are cited in the abstracts by their vernacular name only. These common crop species are listed below with their botanical name as an aid to their identification in the index.

Alfalfa – *Medicago sativa*
Apple – *Malus*
Asparagus – *Asparagus officinalis*
Aubergine – *Solanum melongena*
Banana – *Musa sapientum*
Barley – *Hordeum vulgare*
Bean, cluster – *Cyamopsis tetragonoloba*
Bean, field/broad/horse – *Vicia faba*
Bean, French/snap – *Phaseolus vulgaris*
Bean, lima – *Phaseolus lunatus*
Bean, mung – *Vigna radiata*
Bean, scarlet runner – *Phaseolus coccineus*
Beet, fodder – *Beta vulgaris*
Beet, garden/red – *Beta vulgaris*
Beet, sugar – *Beta vulgaris*
Bent, common/colonial – *Agrostis tenuis*
Bent, creeping – *Agrostis stolonifera*
Bermuda grass – *Cynodon dactylon*
Birdsfoot trefoil – *Lotus corniculatus*
Blueberry – *Vaccinium*
Bluegrass, Kentucky – *Poa pratensis*
Brinjal – *Solanum melongena* var. *esculentum*
Brome, smooth – *Bromus inermis*
Brussels sprout – *Brassica oleracea* var. *gemmifera*
Cabbage – *Brassica oleracea* var. *capitata*
Carrot – *Daucus carota*
Cassava – *Manihot esculenta*
Celery – *Apium graveolens* var. *dulce*
Chickpea – *Cicer arietinum*
Chilli – *Capsicum annuum*
Clover – *Trifolium*
Clover, red – *Trifolium pratense*
Clover, subterranean – *Trifolium subterraneum*
Clover, white – *Trifolium repens*
Cocksfoot – *Dactylis glomerata*
Coconut – *Cocos nucifera*
Coffee – *Coffea*
Corn – *Zea mays*
Cotton – *Gossypium*
Cotton, American/upland – *Gossypium hirsutum*
Cowpea – *Vigna unguiculata*
Cucumber – *Cucumis sativus*
Currant, black – *Ribes nigrum*
Currant, red – *Ribes rubrum*
Eggplant – *Solanum melongena* var. *esculentum*
Fescue, meadow – *Festuca pratensis*
Fescue, red – *Festuca rubra*
Fescue, tall – *Festuca arundinacea*
Fir, Douglas – *Pseudotsuga menziesii*
Flax, fibre – *Linum usitatissimum*
Garlic – *Allium sativum*
Gooseberry – *Ribes grossularia*
Gram, golden/green – *Vigna radiata*
Grape – *Vitis vinifera*
Groundnut – *Arachis hypogaea*
Hop – *Humulus lupulus*
Jute – *Corchorus*
Kale, marrowstem – *Brassica oleracea* var. *acephala*
Kenaf – *Hibiscus cannabinus*
Leek – *Allium porrum*
Lentil – *Lens culinaris*
Lettuce – *Lactuca sativa*
Linseed – *Linum usitatissimum*
Lucerne – *Medicago sativa*
Lupin – *Lupinus*
Lupin, blue – *Lupinus angustifolius*
Lupin, white – *Lupinus albus*
Lupin, yellow fodder – *Lupinus luteus*
Maize – *Zea mays*
Meadowgrass, smoothstalked – *Poa pratensis*
Melon, musk – *Cucumis melo*
Melon, water – *Citrullus vulgaris*
Millet, bread/proso/common – *Panicum miliaceum*
Millet, bulrush/pearl – *Pennisetum americanum*
Millet, finger – *Eleusine coracana*
Mustard, white – *Sinapis alba*
Oat – *Avena sativa*
Oil-palm – *Elaeis guineensis*
Okra – *Hibiscus esculentus*
Olive – *Olea europaea*
Onion – *Allium cepa*
Orange, sweet – *Citrus sinensis*
Orchardgrass – *Dactylis glomerata*
Pea – *Pisum sativum*
Pear – *Pyrus communis*
Pecan – *Carya illinoensis*
Pepper, red – *Capsicum annuum*
Pigeon pea – *Cajanus cajan*
Pine – *Pinus*
Pine, jack – *Pinus banksiana*
Pine, loblolly – *Pinus taeda*
Pine, lodgepole – *Pinus contorta*
Pine, Monterey – *Pinus radiata*
Pine, ponderosa – *Pinus ponderosa*
Pine, Scots – *Pinus sylvestris*
Pineapple – *Ananas comosus*
Potato – *Solanum tuberosum*
Pumpkin – *Cucurbita pepo*
Radish – *Raphanus sativus*
Rape – *Brassica napus*
Rape, oilseed – *Brassica napus* var. *oleifera*
Rape, turnip – *Brassica campestris*
Raspberry – *Rubus idaeus*
Rice – *Oryza sativa*
Rubber – *Hevea brasiliensis*
Rye – *Secale cereale*
Ryegrass, annual/Italian – *Lolium multiflorum*
Ryegrass, perennial – *Lolium perenne*
Safflower – *Carthamus tinctorius*

Shallot – *Allium ascalonicum*
Sorghum – *Sorghum bicolor*
Southern pea – *Vigna unguiculata*
Soybean – *Glycine max*
Spinach – *Spinacia oleracea*
Spruce – *Picea*
Spruce, Norway – *Picea abies*
Squash – *Cucurbita pepo*
Strawberry – *Fragaria*
Sugarcane – *Saccharum officinarum*
Tea – *Camellia sinensis*
Timothy – *Phleum pratense*
Tobacco – *Nicotiana tabacum*
Tomato – *Lycopersicon esculentum*
Turnip – *Brassica campestris*
Wheat – *Triticum*

ERRATA

(lines are counted from the beginning of the bibliographic data in each item.)

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Page	*Abstract*	*Line*	
47	380	4	After '*Symposium*' insert '*organized by IAEA, FAO and Agrochimica. Braunschweig, September*'
88	755	4	For '103-110' read '111-116'
100	871	3	For '917-928' read '927-928'
125	1116	5	For '(5) 504-413' read '(5) 504-513'
131	1166	13	Delete 'of the series.'
131	1168	5	For 'Shammock' read 'Shamrock'
131	1168	5	For '43' read 'PEST 43'
132	1177	3	For '73' read 'PEST 73'
132	1172	3	For '44' read 'PEST 44'
133	1182	14	For '$10^2 4^4$' read '10^{-4}'
133	1185	16	For 'thiomethyl-*s*-triazines' read 'methylthio-*s*-triazines'
134	1190	14	For 'Georia' read 'Georgia'
135	1199	2	For '**on biphenyl**' read '**of biphenyl**'
135	1204	5	For '84' read 'PEST 84'
136	1207	4	For '41' read 'PEST 41'
138	1226	4	For '58' read 'PEST 58'
139	1234	4	For '57' read 'PEST 57'
139	1235	9	Insert 'were' before 'incorporated'
140	1241	5	For '66' read 'PEST 66'
140	1242	5	For '65' read 'PEST 65'
140	1244	2	For '**phytoxicity**' read '**phytotoxicity**'
140	1248	17	For '30 000 μl/ml' read '30 000 μg/ml'
141	1252	5	For '59' read 'PEST 59'
141	1252	16	For 'acetylens' read 'acetylene'
157	1387	13	For '*Zizyphus nummularia*' read '*Ziziphus obtusifolia*'
173	1535	7	For '**2**' read '(2)'
174	1539	11	For '4,4-dipyridyl' read '4,4′-dipyridyl'
174	1544	5	For '20' read '205-209'
177	1574	4	For '**62**' read '**62-64**'
218	1927	11	For 'in four components (grass, times' read 'chambers. Residue half concentration times'
241	2115	4	For '*Plant Physiology*' read '*Physiologia Plantarum*'
253	2220	6	For '301-809' read '301-309'
263	2287	8	For '(2-ethyliopropyl)' read '(2-ethylthiopropyl)'
270	2351	11	Insert the word 'paspalum' after '2,'
319	2805	3	For '[En]' read '[En, 5 refs.]'
320	2810	4	For '12 [En]' read '12pp. [En, 13 refs.]'
324	2841	4	Insert the word '*Ziraat*' after '*Universitesi*'
434	3813	2	For '**Weed competition**' read '**Herbicide comparison**'
434	3813	6	For '20.6 kg' read '0.6 kg'